PAN ASIATIC TECHNOLOGIES SDN BHD & ANOR v. NUCTECH COMPANY LIMITED & ANOR AND ANOTHER APPEAL

COURT OF APPEAL, PUTRAJAYA
HAS ZANAH MEHAT JCA
CHE MOHD RUZIMA GHAZALI JCA
SEE MEE CHUN JCA
[CIVIL APPEAL NOS: W-02(IPCV)(W)-223-02-2015
& W-02(IPCV)(W)-283-02-2015]
17 JULY 2023

Abstract – *A patent specification ought to be given a purposive construction rather than a purely literal one. Construction of a patent is objective and the meaning of the words used is highly sensitive to the context and background and depends not only upon the words chosen but the identity of the audience and the knowledge and assumptions attributed to the audience.*

INTELLECTUAL PROPERTY: *Patent – Invalidation – Application for – Application to invalidate patent – Whether invention patentable – Whether complied with statutory requirements – Whether invention new, involved inventive step and industrially applicable – Whether person requesting invalidation successfully proved allegations to support application to invalidate patent – Whether patent ought to be invalidated – Patents Act 1983, ss. 11, 14(1) & 56(2)(a)*

INTELLECTUAL PROPERTY: *Patent – Infringement – Prior art – Application to invalidate patent – Whether there was infringement – Whether there was relevant prior art – Whether prior art could be used to defeat novelty of patent – Whether patent novel*

COMPANY LAW: *Director – Liability – Infringement of patent by company – High Court attached liability to director based on director's admission that he had procured contract through his own means and expertise – Appeal against decision of High Court – Whether director could be made personally liable for infringing acts of company*

CIVIL PROCEDURE: *Appeal – Memorandum of appeal – Amended memorandum of appeal – Application to regularise amended memorandum of appeal – Memorandum of appeal wrongly dated, not signed and did not contain any endorsement – Whether competent*

In 2011, Pan Asiatic Technologies Sdn Bhd ('Pan Asiatic') had secured a contract with the Customs Department of Malaysia for the supply of screening or inspecting system to be installed at the Customs, Immigration and Quarantine Complex ('CIQ') at Bukit Cagar, Johor Bahru. Pan Asiatic

then entered into an agreement with Powerscan Company Limited ('Powerscan') for the supply of two units of BT-Scan Portal X-Ray Screening System ('BT-scan') and the BT-scan was installed at the CIQ. In 2013, Pan Asiatic secured another contract with the Government of Malaysia to provide and supply four units of the BPSCAN-M1 Portal X-Ray Screening System ('BP-scan') to the Customs Department. The certificate of grant of patent stated Nuctech Company Limited ('Nuctech') and Tsinghua University ('University') as the patent owners. Nuctech filed a claim against Pan Asiatic and three directors, seeking to declare that its Malaysian Patent No. MY-142862-A ('862 Patent') had been infringed by Pan Asiatic ('infringement claim'). Pan Asiatic in turn filed a counterclaim to declare the 862 Patent invalid and in third party proceedings, sued Powerscan for indemnity ('indemnity claim'). The infringement and indemnity claims were allowed and the counterclaim was dismissed. Powerscan filed a claim against Nuctech and the University, seeking to declare the 862 Patent invalid and ought to be revoked ('invalidation claim'). There was also a counterclaim seeking to declare that the 862 Patent had been infringed. The invalidation claim was dismissed and the counterclaim was allowed. Hence, these appeals, namely (i) appeal 223 by Pan Asiatic and one of its directors ('Goh') ('infringement appeal'); and (ii) appeal 283 by Powerscan ('invalidation appeal'). Nuctech crossed appeal in the infringement and invalidation appeals, seeking to have the costs increased to RM2.172 million or such other quantum as considered fit ('cross-appeals'). The issues for determination in these appeals were: (i) whether the 862 Patent was valid; (ii) whether the BT-scan and BP-scan systems had infringed the 862 Patent; and (iii) whether Goh was jointly and severally liable. The appellants in the infringement appeal had filed a notice of motion to regularise the amended memorandum of appeal ('MOA') where it was submitted that the amended MOA was wrongly dated, not signed and did not contain any endorsement ('encl. 74').

Held (dismissing Appeal 223 in part; dismissing Appeal 283; allowing cross-appeals)

Per See Mee Chun JCA delivering the judgment of the court:

(1) There was a failure to pay the applicable filing fees to give effect to the amended MOA. Effectively, there was nothing to regularise as there was no regular amended MOA filed. To compound the matter further, there was also no application for an extension of time to file the amended MOA together with the filing fees. In addition, the Court of Appeal order dated 21 October 2016 could no longer be effected as the amendment pursuant to the order had not been made within 14 days, as required pursuant to O. 20 r. 9 of the Rules of Court 2012 read together with r. 4 of the Rules of the Court of Appeal 1994. Therefore, encl. 74 was dismissed with costs to the first respondent. This meant that there was no competent amended MOA before the court. (paras 12-15 & 17)

(2) Section 56(2)(a) of the Patents Act 1983 ('Act') conferred upon the court the power to invalidate a patent. The relevant ground would be if the person requesting the invalidation proves, *inter alia*, that the patent is not patentable because it does not comply with the requirements of s. 11. Section 11 states that an invention is patentable if it is new, involves an inventive step and is industrially applicable. Section 56(2)(a) of the Act requires that the person requesting the invalidation to prove the ground of the allegation. This meant that the onus of proof was on Powerscan and Pan Asiatic. Based on s. 14(1) of the Act, an invention is not new if it is not anticipated by prior art. Powerscan relied on the 'train patent' and the 'Nuctech imaging patent' as the prior art. However, although the train patent was prior art, it could not be used to defeat the novelty of the 862 Patent as it was raised to attack the inventive step. As for the Nuctech imaging patent, it had the same priority date as the 862 Patent, namely 13 October 2006. Where the priority date is the same, it was clear that the Nuctech imaging patent could not be a prior art. Since there was no relevant prior art which could be said to have anticipated the 862 Patent, the patent was novel. The 862 Patent was valid and invalidity had not been proved, either in that the patent was not novel or did not involve any inventive step. The invalidation appeal was thus dismissed with costs to Nuctech and the University. The BT-scan had infringed the 862 Patent. The infringement appeal was dismissed with costs to Nuctech. (paras 75-79, 96-97, 99, 111 & 140)

(3) The High Court had found that the only evidence to attach liability to Goh was his admission that he had procured the contract from the Customs Department through his own means and expertise. The issue, therefore, was how Goh had been so involved so as to render him personally liable. It was not disputed that the contracts in question were procured in 2011 and 2013. If at all there was an admission by Goh, this was in relation to a contract in 2003 which he said he procured through his own means and efforts. In his witness statement, Goh said 'saya telah memperoleh kontrak tersebut dengan cara dan usaha sendiri dan disokong dengan pengetahuan serta kepakaran saya diri sendiri'. The reference to 'kontrak tersebut' was to the 2003 contract. Therefore, Goh could not be made personally liable for the infringing acts of Pan Asiatic. That part of the appeal on Goh's liability was allowed. (paras 141, 143 & 145)

(4) The High Court awarded Nuctech costs of RM150,000 in the invalidation claim and RM150,000 in the infringement claim. The issue of costs was discretionary but it should be exercised judiciously. The

award of RM150,000 for costs was on the low side, particularly considering the subject matter of the dispute and the expertise required. The court found a reasonable award to be RM400,000 and so awarded that amount for each appeal. (paras 146 & 150)

Case(s) referred to:

Cadware Sdn Bhd v. Ronic Corporation [2014] 9 CLJ 1 CA ***(refd)***
Catnic Components v. Hill & Smith Ltd [1982] RPC 183 ***(refd)***
GD Searle & Co v. Novopharm Ltd [2007] FC 81 ***(refd)***
General Tire & Rubber Company v. The Firestone Tyre and Rubber Company Ltd [1972] RPC 457 ***(refd)***
Kendek Industry Sdn Bhd v. Ecotherm (TFT) Sdn Bhd [2010] 10 CLJ 219 HC ***(refd)***
Kirin-Amgen Inc v. Hoechst Marion Roussel Ltd [2005] 1 All ER 667 ***(refd)***
Lexmark International Inc v. Impression Products (2016) 119 IPR 335 ***(refd)***
Lundbeck Canada Inc v. Ratiopharm Inc [2009] FC 1102 ***(refd)***
Mohamed Zainuddin Puteh v. Yap Chee Seng [1976] 1 LNS 76 HC ***(refd)***
Pan Asiatic Technologies Sdn Bhd & Anor v. Nuctech Company Ltd & Anor [2018] 1 LNS 63 CA ***(refd)***
Ranbaxy (Malaysia) Sdn Bhd v. E.I Du Pont Nemours And Company [2012] 9 CLJ 79 CA ***(refd)***
Rockwater Ltd v. Technip France SA [2004] EWCA Civ 381 ***(refd)***
Samuel Naik Siang Ting v. Public Bank Bhd [2015] 8 CLJ 944 FC ***(refd)***
Sanofi-Aventis (Malaysia) Sdn Bhd & Anor v. Fresenius Kabi (Malaysia) Sdn Bhd & Anor [2012] 4 CLJ 532 HC ***(refd)***
Spind Malaysia Sdn Bhd v. Justrade Marketing Sdn Bhd & Anor [2018] 4 CLJ 705 FC ***(refd)***
Technograph Printed Circuits Ltd v. Mills & Rockley (Electronics) Ltd [1972] RPC 346 ***(refd)***
The Generics (UK) Ltd v. H Lundbeck A/S [2006] EWCA Civ 1261 ***(refd)***
Windsurfing International Inc v. Tabur Marine (Great Britain) Ltd [1985] RPC 59 ***(refd)***

Legislation referred to:

Patents Act 1983, ss. 11, 14(1), (2)(a), 15, 29A(4)(b), 37, 38, 56(1), (2)(a), (e), 58, 78A, 78K
Patents Regulations 1986, r. 27(3), (6)
Rules of Court 2012, O. 20 r. 9
Rules of the Court of Appeal 1994, r. 4
Patent Act [Canada], s. 73(1)(a)

(Civil Appeal W-02(IPCV)(W)-223-02-2015)

For the appellants - Gopal Sri Ram, Chew Kherk Ying, Chong Tze Lin, Austen Pereira & Raymond Tan; M/s Wong & Partners
For the 1st respondent - Khoo Guan Huat, Kuek Pei Yee, Joshua Teoh Beni Chris, Gooi Yang Shuh & Joshue Teng Ern Yung; M/s Skrine
For the 2nd respondent - Teo Bong Kwang, Eugene Ee Fu Xiang & Kathreena Korotana; M/s Wong Jin Nee & Teo

(Civil Appeal W-02(IPCV)(W)-283-02-2015)

For the appellant - Teo Bong Kwang, Eugene Ee Fu Xiang & Kathreena Korotana; M/s Wong Jin Nee & Teo

For the 1st respondent - Khoo Guan Huat, Kuek Pei Yee, Joshua Teoh Beni Chris, Gooi Yang Shuh & Joshue Teng Ern Yung; M/s Skrine

For the 2nd respondent - Muhammad Shafee Abdullah, Mohd Farhan Shafee & Wan Mohamad Arfan; M/s Shafee & Co

[Editor's note: For the High Court judgment, please see Nuctech Company Limited v. Pan Asiatic Technologies Sdn Bhd & Ors; Powerscan Company Limited (Third Party) [2016] 1 LNS 398 (overruled in part).]

Reported by Lina E

JUDGMENT

See Mee Chun JCA:

Introduction

[1] There are two appeals before us. Appeal 223 is the appeal by Pan Asiatic Technologies Sdn Bhd (Pan Asiatic) and one Goh Chu Leong, director of the company (Goh). Appeal 283 is the appeal by Powerscan Company Limited (Powerscan).

[2] Since both appeals are being heard together and to avoid confusion of parties, the parties will be referred to by name. Where a specific appeal is referred to, the parties will be referred to as the appellant or the respondent.

[3] In appeal 223, Nuctech Company Limited (Nuctech) had filed a claim against Pan Asiatic and three directors (directors) seeking essentially to declare that its Malaysian Patent No. MY-142862-A (the '862 Patent) had been infringed by Pan Asiatic. Pan Asiatic in turn filed a counterclaim to declare the '862 Patent invalid. Pan Asiatic, in third party proceedings, sued Powerscan for indemnity. Nuctech's claim will be referred to as the infringement claim.

[4] In appeal 283, Powerscan filed a claim against Nuctech and Tsinghua University (University) seeking to declare the '862 Patent to be invalid and to be revoked. There was a counterclaim seeking to declare the '862 Patent had been infringed. Powerscan's claim will be referred to as the invalidation claim.

[5] The infringement claim and the indemnity claim therein were allowed and the counterclaim was dismissed.

[6] The invalidation claim was dismissed and the counterclaim was allowed.

[7] These then are the appeals. The appeals will likewise be referred to as the infringement appeal and the invalidation appeal. References to enclosures are to those filed for the infringement appeal, unless otherwise indicated.

Preliminaries

[8] We will first deal with two preliminary issues which unfolded even before the substantive appeals could be heard.

Notice Of Motion In encl. 74 Of The Infringement Appeal

[9] This notice of motion in encl. 74 was filed on 8 March 2023 by the appellants in the infringement appeal. According to them, this is a motion to regularise the amended memorandum of appeal (MOA) dated 10 October 2016 in encl. 21. To be precise, this will be encl. 21/11-19.

[10] As acknowledged by the appellants and indeed this is what is being sought to be regularised by encl. 74, the amended MOA was wrongly dated, not signed and did not contain any endorsement.

[11] At the outset, we note that there is no regular amended MOA filed. This can be seen by referring to encl. 21 and comparing it to an example of a properly endorsed amended MOA in Annexure A of the first respondent's submission (encl. 81). Refer to the comparison as below.

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DALAM MAHKAMAH RAYUAN MALAYSIA
(BIDANG KUASA RAYUAN)
RAYUAN SIVIL NO: W-02(IPCV)(W)-223-02/2015

ANTARA

1. PAN ASIATIC TECHNOLOGIES SDN BHD
(No. Syarikat: 742846-D)

2. GOH CHU LEONG
(No. K/P: 640520-01-5835) ...PERAYU-PERAYU

DAN

1. NUCTECH COMPANY LIMITED
2. POWERSCAN COMPANY LIMITED ...RESPONDEN-RESPONDEN

(Dalam Mahkamah Tinggi Malaya Di Kuala Lumpur
Saman Pemula No : 22IP-43-11/2013)

ANTARA

NUCTECH COMPANY LIMITED ...PLAINTIF

DAN

1. PAN ASIATIC TECHNOLOGIES SDN BHD
(No. Syarikat: 742846-D)
2. GOH CHU LEONG
(No. K/P: 640520-01-5835)
3. ABDUL KARIM BIN MOHD HANAPIAH
(No. K/P: 510725-10-5353)
4. DATUK SERI ALIES ANOR BIN ABDUL
(No. K/P: 550201-02-5519) ...DEFENDAN-DEFENDAN

DAN

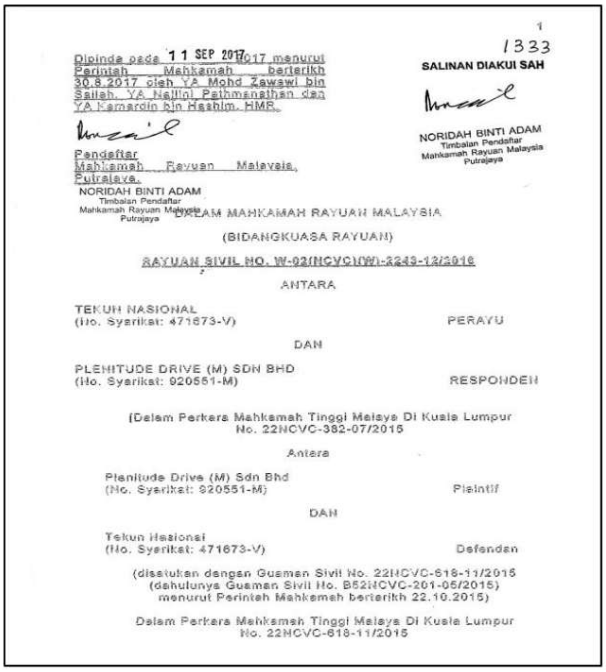
POWERSCAN COMPANY LIMITED ...PIHAK KETIGA

MEMORANDUM RAYUAN TERPINDA

Pan Asiatic Technologies Sdn Bhd dan Goh Chu Leong, Perayu-perayu yang dinamakan di atas, merayu kepada Mahkamah Rayuan terhadap keseluruhan keputusan yang diputuskan oleh Hakim yang Bijaksana, YA Datin Azizah Binti Haji Nawawi, yang diberikan di Mahkamah Tinggi Kuala Lumpur pada 14.01.2015, atas alasan-alasan yang berikut:

1

Enclosure 21



1333

Dipinda pada 11 SEP 2017 menurut Perintah Mahkamah bertarikh 30.8.2017 oleh YA Mohd Zawawi bin Salleh, YA Nallini Pathmanathan dan YA Kamardin bin Hashim, HMR.

Pendaftar
Mahkamah Rayuan Malaysia,
Putrajaya.
NORIDAH BINTI ADAM
Timbalan Pendaftar
Mahkamah Rayuan Malaysia
Putrajaya

SALINAN DIAKUI SAH

NORIDAH BINTI ADAM
Timbalan Pendaftar
Mahkamah Rayuan Malaysia
Putrajaya

DALAM MAHKAMAH RAYUAN MALAYSIA

(BIDANGKUASA RAYUAN)

RAYUAN SIVIL NO. W-02(NCVC)(W)-2243-12/2016

ANTARA

TEKUN NASIONAL
(No. Syarikat: 471673-V) PERAYU

DAN

PLEHITUDE DRIVE (M) SDN BHD
(No. Syarikat: 920551-M) RESPONDEN

(Dalam Perkara Mahkamah Tinggi Malaya Di Kuala Lumpur
No. 22NCVC-382-07/2015

Antara

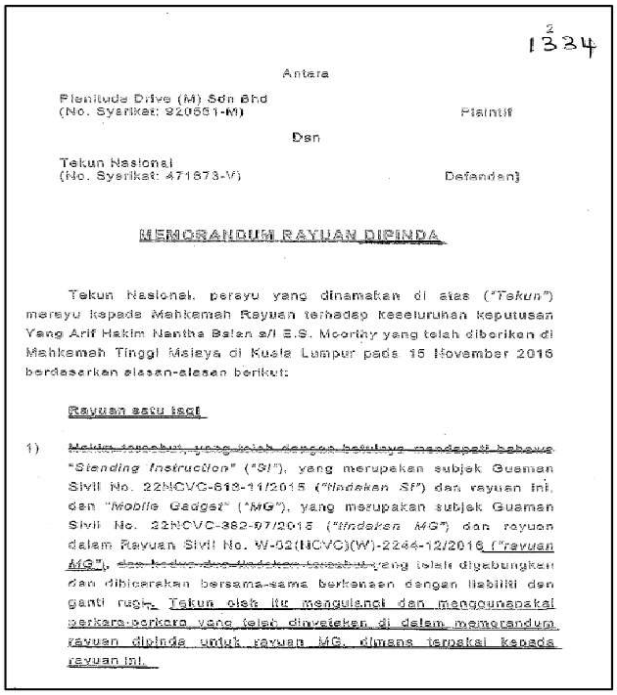
Plenitude Drive (M) Sdn Bhd
(No. Syarikat: 920551-M) Plaintif

DAN

Tekun Nasional
(No. Syarikat: 471673-V) Defendan

(disatukan dengan Guaman Sivil No. 22NCVC-618-11/2015
(dahulunya Guaman Sivil No. B52NCVC-201-05/2015)
menurut Perintah Mahkamah bertarikh 22.10.2015)

Dalam Perkara Mahkamah Tinggi Malaya Di Kuala Lumpur
No. 22NCVC-618-11/2015



1334

Antara

Plenitude Drive (M) Sdn Bhd
(No. Syarikat: 920551-M) Plaintif

Dan

Tekun Nasional
(No. Syarikat: 471673-V) Defendan]

MEMORANDUM RAYUAN DIPINDA

Tekun Nasional, perayu yang dinamakan di atas ("*Tekun*") mersyu kepada Mahkamah Rayuan terhadap keseluruhan keputusan Yang Arif Hakim Nantha Balan a/l E.S. Moorthy yang telah diberikan di Mahkamah Tinggi Malaya di Kuala Lumpur pada 15 November 2016 berdasarkan alasan-alasan berikut:

Rayuan satu isu[ ]

1) ~~Mahkamah tersebut, yang telah dengan betulnya mendapati bahawa~~ "*Standing Instruction*" ("*SI*"), yang merupakan subjek Guaman Sivil No. 22NCVC-618-11/2015 ("*tindakan SI*") dan rayuan ini, dan "*Mobile Gadget*" ("*MG*"), yang merupakan subjek Guaman Sivil No. 22NCVC-382-07/2015 ("*tindakan MG*") dan rayuan dalam Rayuan Sivil No. W-02(NCVC)(W)-2244-12/2016 ("*rayuan MG*"), ~~dan tindakan dan tindakan tersebut~~ yang telah digabungkan dan dibicarakan bersama-sama berkenaan dengan liabiliti dan ganti rugi. Tekun oleh itu mengulangi dan mengemukakan perkara-perkara yang telah dinyatakan di dalam memorandum rayuan dipinda untuk rayuan MG, dimana terpakai kepada rayuan ini.

Example of an endorsed amended MOA

[12] Further, there was a failure to pay the applicable filing fees to give effect to the amended MOA. This requirement of filing fees is as per Appendix B1 Item 65 of the Rules of Court 2012 (RC) read together with r. 4 of the Rules of the Court of Appeal 1994 (RCA). Rule 4 of the RCA enables the application of RC as follows:

> 4. Application of Rules of Court 2012
>
> Where no other provision is made by any written law or by these Rules, the procedure and practice in the Rules of Court 2012 shall apply *mutatis mutandis*.

Here, in the absence of filing fees being prescribed in RCA, the RC applies where the aforesaid Item 65 prescribes a filing fee of RM16 "on amending or filing any other amended document".

[13] Effectively, there is nothing to regularise as there is no regular amended MOA filed.

[14] To compound the matter further, there is no application for an extension of time to file the amended MOA together with the filing fees. What we have is only an application for extension of time to file the application to regularise.

[15] In addition, the Court of Appeal order dated 21 October 2016 can no longer be effected as the amendment pursuant to the order has not been made within 14 days. This is as required pursuant to O. 20 r. 9 of the RC read with r. 4 of the RCA. Order 20 r. 9 provides as follows:

> Failure to amend after order (O. 20, r. 9)
>
> 9. Where the court makes an order under this Order giving any party leave to amend a writ, pleading or other document, then, if that party does not amend the document in accordance with the order before the expiration of the period specified for that purpose in the order or, if no period is so specified, of a period of fourteen days after the order was made, the order shall cease to have effect, without prejudice, however, to the power of the Court to extend the period.

[16] We acknowledge it was this court that had raised the issues pertaining to the MOA and that by the time encl. 74 was filed, extensive submissions had been filed and oral submissions made on the suppression issue. The issues of non-prejudice, and that the errors are curable, cannot possibly negate the fact that there is no regular amended MOA filed.

[17] Enclosure 74 is dismissed with costs of RM5,000 to the first respondent. This means there is no competent amended MOA before this court. What we have before us is encl. 19 which is the MOA dated 26 February 2016 (encl. 19/9-26) minus the references to the suppression paragraphs. This court is therefore not obliged to consider suppression.

Suppression

[18] If we are wrong to have dismissed encl. 74, we proceed to the suppression issue.

[19] By Court of Appeal order dated 21 October 2016, the MyIPO letter dated 25 July 2016 (MyIPO letter) was allowed to be admitted as fresh evidence. The letter can be seen in encl. 47/25. It states as follows:

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INTELLECTUAL PROPERTY CORPORATION OF MALAYSIA
Agensi di bawah KPDNKK
Unit 1-7 & Mezzanine, Aras 12-19
Tower B, Menara UOA Bangsar
No. 5, Jalan Bangsar Utama 1
59000 KUALA LUMPUR
MALAYSIA

PERAKUAN MENGENAI MAKLUMAT PATEN NO.: MY-142862-A

Berdasarkan permintaan maklumat bagi Borang 5C bertarikh 18 Julai 2016, adalah dengan ini diperakukan bahawa maklumat didalam milikan Pejabat Pendaftaran Paten mengikut peruntukan dibawah Seksyen 83A Akta Paten 1983 berhubung paten diatas adalah seperti berikut :

Bahawa Borang 2A bertarikh 7 November 2007 yang difailkan oleh pemunya paten MY-142862-A mempunyai tarikh prioriti 13 Oktober 2006 dari negara China dan sehingga pemberian paten, tarikh prioriti tidak pernah ditarikbalik.

Bahawa pemunya-pemunya Paten No.: MY-142862-A telah tidak membuat apa-apa kenyataan bahawa mereka telah dikehendaki menghadkan skop Claim 1 permohonan mereka di China dan juga di Eropah supaya terhad kepada penggunaan sistem microwave sahaja.

Disahkan oleh

PENDUBIAYA SUMPAH
(W 391)
YAP LEE CHIN

DATO' SHAMSIAH BT. KAMARUDDIN
Pendaftar Paten

Tingkat 3, Wisma Merdeka
No.28, Medan Pasar
50050 Kuala Lumpur

5 Julai 2016

(Agensi di bawah Kementerian Perdagangan Dalam Negeri, Koperasi dan Kepenggunaan)

[20] Suppression is said to have arisen where it is alleged that MylPO was not notified that Nuctech had withdrawn the priority claim in its PCT (Patent Cooperation Treaty) application and that MyIPO was not notified about the narrowing of the corresponding claims in China and Europe.

[21] If true, the consequence of this leads to the invalidation of the '862 Patent granted, under s. 56(2)(e) of the Patents Act (1983 Act) read together with s. 29A(4) and reg. 27(3) of the Patents Regulations 1986 (1986 Regulations).

[22] Section 56(1) and (2)(e) provides as follows:

> Invalidation of patent
>
> 56. (1) Any aggrieved person may institute court proceedings against the owner of the patent for the invalidation of the patent.
>
> (2) The court shall invalidate the patent if the person requesting the invalidation proves:
>
> (e) that incomplete or incorrect information has been deliberately provided or caused to be provided to the Registrar under subsection 29A(4) by the person to whom the patent was granted or by his agent.

[23] This provision empowers the court to invalidate any patent if it is proved that incomplete or incorrect information has been deliberately provided to the Registrar under sub-s. 29A(4) by the person to whom the patent was granted or by his agent.

[24] It is not disputed that the information of withdrawal and non-notification of narrowing of claims was not disclosed to MyIPO. Nuctech takes the position it was not required to do so.

Pleadings Point

[25] Nuctech has raised the pleadings point where invalidation was never pleaded and the fresh evidence is a backdoor attempt to raise an unpleaded matter.

[26] Pan Asiatic's response is that this was not raised as these were concealed from it; and estoppel and election arise as the arguments on lack of pleadings were raised in the application for fresh evidence and Nuctech's application to adduce evidence to the admission of MylPO letter. A consent order dated 9 December 2019 was recorded and parties were allowed to file their respective expert evidence.

[27] The matter may well have been argued in the earlier application but the court then still left the matter open where the question of relevance has to necessarily go to pleadings. This can be readily seen from the grounds of the court then, where when the MyIPO letter was admitted as fresh evidence, the court had left the relevance and weight of the letter open. Refer to *Pan Asiatic Technologies Sdn Bhd & Anor v. Nuctech Company Ltd & Anor* [2018] 1 LNS 63; [2018] MLJU 59, para. 11, as follows:

> [11] We are of the view that the objection raised by the learned counsel of the first respondent was as to the relevance and weight, that ought to be attached to the document by the appellate court, should it become material in the consideration of the appeal if at all. We are however of the considered view that the first respondent would still be entitled to put forward their arguments on those aspects relating to the documents and would not be precluded from raising any issue as to relevance of the document during the course of the submissions at the hearing of the appeal proper, should the document or its contents be referred to by the appellants.

[28] We find merit in Nuctech's submission. Hence, Nuctech would not be precluded from raising any issue as to the relevance of the letter during the hearing of the appeal proper.

[29] The consent order did not operate as an estoppel. The consent order can be found in encl. 22/9-15. Paragraph 1 of the consent order granted leave to Nuctech to admit as further evidence the report of one Gary Smith dated 6 January 2017 and all references referred to therein for the purposes of responding to Pan Asiatic and Goh's further evidence and issues raised in the amended MOA but not pleaded or tried in the High Court.

[30] What the court now has, is the MyIPO letter which is to support invalidation by Pan Asiatic and Goh, which was not pleaded, and with the letter being admitted, ought to have been pleaded, by way of an amendment.

[31] It is indeed a trite principle of law that parties are bound by pleadings. We refer to *Samuel Naik Siang Ting v. Public Bank Bhd* [2015] 8 CLJ 944; [2015] 6 MLJ 1 at para. 29 which stated "it is a cardinal rule in civil litigation that parties are bound by their pleadings and are not allowed to adduce facts and issues which they have not pleaded". It follows that matters not pleaded cannot be raised even if it had been allowed in as fresh evidence. This is a backdoor approach, as alluded to by Nuctech's counsel.

[32] There can also be no suppression where the documents regarding the withdrawal of priority and the narrowing of the CN and EU claims were available during the trial in the High Court. The document on the PCT notice of withdrawal is in encl. 12/140 (bundle Bhg C vol. 7/2560) and those pertaining to CN and EU are in encl. 10/91 and encl. 12/65 (bundle Bhg C vol. 5/2093 and Bhg C vol. 7/2485) respectively. What was disclosed in the MylPO letter were thus facts already available in the High Court then.

Scope Of Disclosure

[33] Section 29A(4) of the 1983 Act states as follows:

> **Request for substantive examination or modified substantive examination**
>
> 29A ...
>
> (4) The Registrar may require the applicant to provide, at the time of filing a request for a substantive examination:
>
> (a) any prescribed information or prescribed supporting document concerning the filing of any application for a patent or other title of industrial property protection filed outside Malaysia by such applicant or his predecessor in title with a national, regional or international industrial property office;
>
> (b) any prescribed information concerning the results of any search or examination carried out by an International Searching Authority under the Patent Cooperation Treaty, relating to the same or essentially the same invention as that claimed in the application for which the request for a substantive examination is being filed.

[34] Section 29A(4) of the 1983 Act provides that the Registrar may require the applicant to provide, at the time of filing a request for a substantive examination the prescribed information in paras. (a) and (b). One will be immediately drawn to the words "at the time" where such time is tied to the filing of the request.

[35] The prescribed information is in turn stated in reg. 27(3) of the 1986 Regulations to be:

> **27 Request for substantive examination**
>
> (3) A request for a substantive examination shall, where appropriate, be accompanied by:
>
> (a) information relating to the application number and filing date of any application for a patent or other title of industrial property protection filed with any prescribed industrial property office relating to the same or essentially the same invention as that claimed in the application;
>
> (b) information relating to the number assigned to a patent or other title of industrial property protection granted for the same or essentially the same invention as that claimed in the application by any prescribed industrial property office;
>
> (c) the results of any searches or examinations carried out by any prescribed industrial property office relating to the same or essentially the same invention as that claimed in the application, and where the results of any searches or examinations are not in the English language, a certified translation in the English language of such search or examination.

[36] From the above, the prescribed information refers to an activity which has already passed, namely "filed", "granted" and "carried out". This would support Nuctech's contention that the information is limited to information or documents already in existence at the time of the filing of the request for substantive examination.

[37] Here, the various dates for all given events are not disputed. The request for substantive examination was made on 7 November 2007, the withdrawal of the priority claim was made on 13 April 2009 and the narrowing of claims in CN and EU application were made on 7 November 2009 and 18 February 2011 respectively. These events took place after the request and were certainly not in existence then. There is therefore no duty to disclose what took place after the request, which means there is no continuing duty of disclosure.

[38] The advice by MyIPO dated 26 November 2007 (encl. 47/41-42) "that information not available at the time of requesting substantive examination may be lodged at the Registry at a later date when it becomes available" has to be read in the light of the meaning of prescribed information as construed above.

Duty Of Candour

[39] With regard to the duty of candour and with it the continuing duty of disclosure, it was said that the prosecution of a patent is similar to an *ex parte* application. This is because only the applicant is in dialogue with MyIPO throughout the process; no third party has access to any of the correspondence between the applicant and MyIPO during this process; there is no pre-grant opposition procedure and invalidation proceedings are only available after a patent has been granted.

[40] It was thus submitted that similar to an applicant in an *ex parte* application, a patentee is legally bound to make full and frank disclosure of all material facts since such an application is an application of utmost good faith. Reference was also made to *Mohamed Zainuddin Puteh v. Yap Chee Seng* [1976] 1 LNS 76; [1978] 1 MLJ 40 for the principle that the party applying for *ex parte* injunction is bound to state not only the facts that he considers material but all facts within his knowledge that are material and if shown otherwise, the injunction can be dissolved.

[41] We find that the attempt to draw a parallel between *ex parte* applications and patent prosecution, is misplaced, due to the many differences between them. Chief of such differences is that patent prosecution is administrative proceedings specifically governed by the 1983 Act and the 1986 Regulations as opposed to *ex parte* applications which are judicial proceedings governed by RC. A patent prosecution entails substantive examination process where the Examiner/Registrar conducts its own search and investigation to determine patentability whereas in an *ex parte*, reliance is placed on the applicant's evidence adduced by affidavits.

[42] Patent grants are statutory in nature and governed by the 1983 Act and the 1986 Regulations, and nothing more. The duty of good faith and/or candour is only confined to prescribed information within the meaning of s. 29A(4) of the 1983 Act read together with reg. 27(3) of the 1986 Regulations. *Mohamed Zainuddin* is of no assistance as even Pan Asiatic recognised it dealt with *ex parte* injunction.

[43] It is noted too that we do not have an equivalent to s. 73(1)(a) of the Canada Patent Act where an application for patent is deemed abandoned if the applicant does not reply in good faith, within the prescribed time, to any requisition made by an examiner in connection with an examination. The two Canadian cases referred to (*GD Searle & Co v. Novopharm Ltd* [2007] FC 81 and *Lundbeck Canada Inc v. Ratiopharm Inc* [2009] FC 1102) were post-amendment and therefore are again of no assistance.

A **Relevance And Weight**

[44] The thrust of Nuctech's submission is that alleged suppression in the withdrawal of priority has no effect on the '862 Patent; the EPO search report is not relevant; and neither is the narrowing of the CN and EU applications.

B

[45] We are in complete agreement with the above submission.

[46] We say that the withdrawal of priority has no effect on the '862 Patent as the withdrawal is only applicable to the international phase which is from the filing of the international application until the entry into the national C phase. This is the meaning ascribed to "international phase" in s. 78A of the 1983 Act read together with s. 78K where the PCT is to apply to the processing of an international application during the international phase of the application. The international phase ended on 7 November 2007 with the entry into the national phase whereas the withdrawal of priority was D subsequent, on 13 April 2009.

[47] As to the EPO search report, we had earlier said that prescribed information must be those in existence at the time of the request for substantive examination. Here, it is not disputed that the search report was dated 4 August 2010.

E

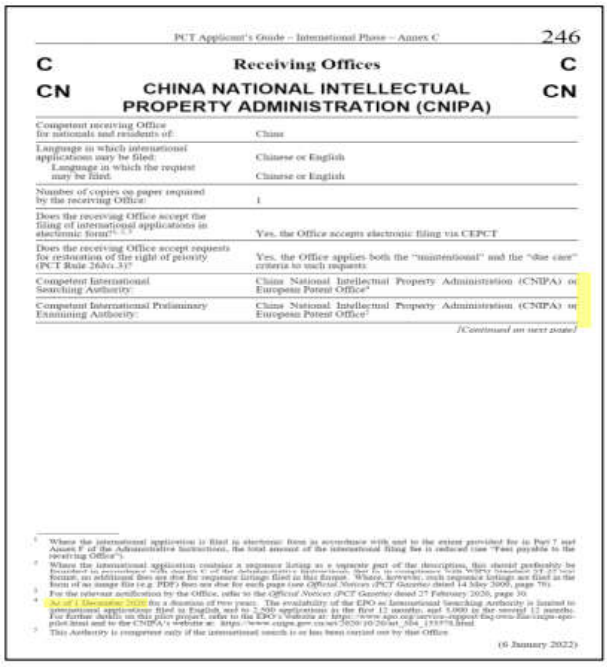
[48] Further, the search report does not fall within the meaning of International Searching Authority (ISA) as envisaged in s. 29A(4)(b).

As may be recalled, the prescribed information required is as stated in reg. 27(3) of the 1986 Regulations. Paragraph (c) deals with the results of any F searches carried out by prescribed industrial property office. Regulation 27(6) in turn provides as follows:

> 27 Request for substantive examination
>
> ...
>
> G (6) For the purposes of these Regulations, "prescribed industrial property office" means the Patent Office of Australia, the Patent Office of Japan, the Patent Office of The Republic of Korea, the Patent Office of the United Kingdom, the Patent Office of the United States of America or the European Patent Office, as the case may require, in its capacity as a national office or, where appropriate, as an International Searching H Authority or as an International Preliminary Examination Authority under the Patent Cooperation Treaty.

[49] The competent International Searching Authority then was the China National Intellectual Property Administration (CNIPA) and European Patent Office (EPO). This is may be shown as below (encl. 63/246):

I



PCT Applicant's Guide – International Phase – Annex C 246

C Receiving Offices C

CN CHINA NATIONAL INTELLECTUAL PROPERTY ADMINISTRATION (CNIPA) CN

Competent receiving Office for nationals and residents of:	China
Language in which international applications may be filed:	Chinese or English
Language in which the request may be filed:	Chinese or English
Number of copies on paper required by the receiving Office:	1
Does the receiving Office accept the filing of international applications in electronic form?[1, 2, 3]	Yes, the Office accepts electronic filing via CEPCT
Does the receiving Office accept requests for restoration of the right of priority (PCT Rule 26bis.3)?	Yes, the Office applies both the "unintentional" and the "due care" criteria to such requests
Competent International Searching Authority:	China National Intellectual Property Administration (CNIPA) or European Patent Office[4]
Competent International Preliminary Examining Authority:	China National Intellectual Property Administration (CNIPA) or European Patent Office[5]

[Continued on next page]

[1] Where the international application is filed in electronic form in accordance with and to the extent provided for in Part 7 and Annex F of the Administrative Instructions, the total amount of the international filing fee is reduced (see "Fees payable to the receiving Office").

[2] Where the international application contains a sequence listing as a separate part of the description, this shall preferably be furnished in accordance with Annex C of the Administrative Instructions, that is, in compliance with WIPO Standard ST.25 (text format, no additional fees are due for sequence listings filed in this format. Where, however, such sequence listings are filed in the form of an image file (e.g. PDF) fees are due for each page (see *Official Notices (PCT Gazette)* dated 14 May 2009, page 78).

[3] For the relevant notification by the Office, refer to the *Official Notices (PCT Gazette)* dated 25 February 2020, page 30.

[4] As of 1 December 2020 for a duration of two years. The availability of the EPO as International Searching Authority is limited to international applications filed in English and to 2,500 applications in the first 12 months, and 5,000 in the second 12 months. For further details on this pilot project, refer to the EPO's website at: https://www.epo.org/service-support/faq/cnipa-epo-pilot.html and to the CNIPA's website at: https://www.cnipa.gov.cn/art/2020/10/26/art_304_155974.html.

[5] This Authority is competent only if the international search is or has been carried out by that Office.

(6 January 2022)

[50] There is a note 4 that states "as of 1 December 2020 for a duration of two years the availability of the EPO as an International Searching Authority is limited to international applications filed in English ...". This means the EPO search report is not relevant as EPO was not then an ISA. The ISA then was CNIPA, which however does not fall within the definition of industrial property office as has been listed above.

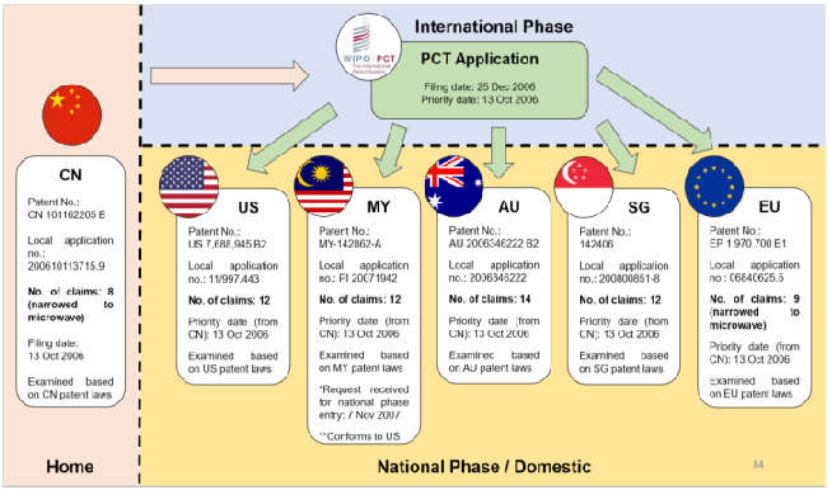
[51] Nothing is to be made of the narrowing of claims in the CN and EU applications where patent rights are territorial in nature. The territoriality of patents was recognised in an American case of *Lexmark International Inc v. Impression Products* (2016) 119 IPR 335 where at pp. 373 to 374 this was said:

> ... Government policies differ dramatically, including policies on price regulation and, most particularly, policies on the availability and scope of patent protection. Patents standards vary. The government explains:
>
> > The independence of national patent systems ... is one of the defining principles of the international [*102] legal regime governing the protection of inventions. The United States has ratified the Paris Convention for the Protection of Industrial Property, originally adopted more than a century ago, which specifically provided in Article 4bis that "Patents applied for in the different contracting States ... shall be independent of the patents obtained for the same invention in the other States ..." 32 Stat. 1936 (Aug 25, 1902). While international agreements facilitate the ability of investors in one country to seek patent protection in

A others, the patents laws of each country are not reciprocal in their protections for particular inventions. As every patent attorney knows, the United States may issue a patent while another country denies protection for the same invention, or approves claims significantly different in scope.

B **[52]** We were also referred to a table prepared by Nuctech that showed there were patents granted elsewhere with different scopes and claims for the same invention. This can be shown as below:

C


International Phase
PCT Application
Filing date: 25 Dec 2006
Priority date: 13 Oct 2006
CN
Patent No.: CN 101162205 B
Local application no.: 200610113715.9
No. of claims: 8 (narrowed to microwave)
Filing date: 13 Oct 2006
Examined based on CN patent laws
US
Patent No.: US 7,686,945 B2
Local application no.: 11/997,443
No. of claims: 12
Priority date (from CN): 13 Oct 2006
Examined based on US patent laws
MY
Patent No.: MY-142862-A
Local application no.: PI 20071942
No. of claims: 12
Priority date (from CN): 13 Oct 2006
Examined based on MY patent laws
*Request received for national phase entry: 7 Nov 2007
**Conforms to US
AU
Patent No.: AU 2006346222 B2
Local application no.: 2006346222
No. of claims: 14
Priority date (from CN): 13 Oct 2006
Examined based on AU patent laws
SG
Patent No.: 142406
Local application no.: 200800851-8
No. of claims: 12
Priority date (from CN): 13 Oct 2006
Examined based on SG patent laws
EU
Patent No.: EP 1 970 700 E1
Local application no.: 08640625.5
No. of claims: 9 (narrowed to microwave)
Priority date (from CN): 13 Oct 2006
Examined based on EU patent laws
Home
National Phase / Domestic

D

E

This would fortify the finding that the narrowing of claims in CN and EU are not relevant to the '862 Patent.

F

Conclusion On Suppression

[53] We therefore find no merit to the suppression issue, from the pleadings as well as the substantive aspect. There was no breach of s. 56(2)(e) of the 1983 Act which would render the '862 Patent invalid.

G **[54]** Effectively this means the priority date of the '862 Patent remains that of 13 October 2006 and has not shifted to 25 December 2006.

The Appeals

[55] We now deal with the substantive appeals.

H

Background Facts

The Contracts Leading To The Claim

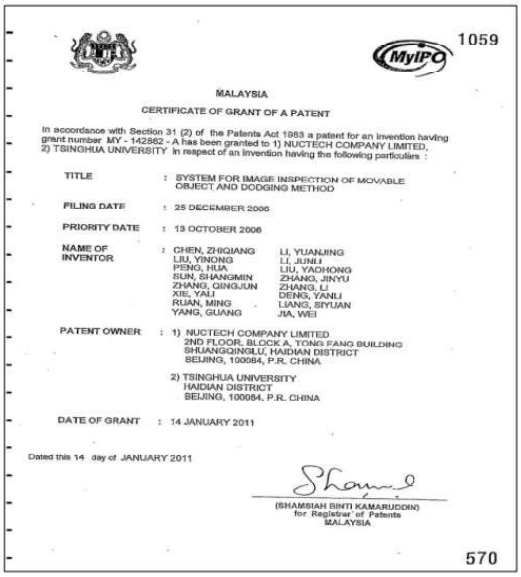
[56] In or around 2011, Pan Asiatic had secured a contract with the Customs Department of Malaysia for the supply of screening or inspecting system to be installed at Customs, Immigration and Quarantine Complex (CIQ) at Bukit Cagar, Johor Bahru. Pan Asiatic entered into an agreement with Powerscan for the supply of two units of BT-scan P/X Portal X-Ray Screening System (BT-scan). The BT-Scan was installed at the CIQ.

I

[57] On or about 30 April 2013, Pan Asiatic secured another contract with the Government of Malaysia to provide and supply four units of BPSCAN-M1 Portal X-Ray Screening System (BP-Scan) to the Customs Department.

The '862 Patent

[58] The certificate of grant of patent is dated 14 January 2011 and states Nuctech and the University as the patent owners. Refer to the certificate in encl. 56/579 which shows the following:



1059

MALAYSIA

CERTIFICATE OF GRANT OF A PATENT

In accordance with Section 31 (2) of the Patents Act 1983 a patent for an invention having grant number MY - 142862 - A has been granted to 1) NUCTECH COMPANY LIMITED, 2) TSINGHUA UNIVERSITY in respect of an invention having the following particulars :

TITLE	:	SYSTEM FOR IMAGE INSPECTION OF MOVABLE OBJECT AND DODGING METHOD
FILING DATE	:	25 DECEMBER 2006
PRIORITY DATE	:	13 OCTOBER 2006
NAME OF INVENTOR	:	CHEN, ZHIQIANG; LIU, YINONG; PENG, HUA; SUN, SHANGMIN; ZHANG, QINGJUN; XIE, YALI; RUAN, MING; YANG, GUANG; LI, YUANJING; LI, JUNLI; LIU, YAOHONG; ZHANG, JINYU; ZHANG, LI; DENG, YANLI; LIANG, SIYUAN; JIA, WEI
PATENT OWNER	:	1) NUCTECH COMPANY LIMITED 2ND FLOOR, BLOCK A, TONG FANG BUILDING SHUANGQINGLU, HAIDIAN DISTRICT BEIJING, 100084, P.R. CHINA 2) TSINGHUA UNIVERSITY HAIDIAN DISTRICT BEIJING, 100084, P.R. CHINA
DATE OF GRANT	:	14 JANUARY 2011

Dated this 14 day of JANUARY 2011

(SHAMSIAH BINTI KAMARUDDIN)
for Registrar of Patents
MALAYSIA

570

[59] There are 12 claims in the '862 Patent. The 12 claims are as detailed in encl 56/581-602. In particular, what is being claimed is set out in pp. 594 to 597 as below:

What Is Claimed Is:

(1) A system for imaging inspection of a movable object (15), comprising: a first detecting unit (101) configured to detect whether a moving object (15) to be inspected moves into a passage (14) or not;

a second detecting unit (201) configured to detect whether a part (16) to be shielded of the moving object (15) passes into the passage or not and generate a passing signal after the first detecting unit (101) detects that the moving object (15) to be inspected moves into the passage (14);

a scan imaging device (104) configured to emit radiating beams for inspecting the moving object (15) to be inspected by scanning; and

a control system (103) configured to generate a control signal for controlling the scan imaging device (104) to generate the radiating beams according to the passing signal from the second detecting wait (201).

A

(2) The system for imaging inspection of a movable object (15) according to claim 1, wherein the scan imaging device (104) comprises an accelerator (300, 305, 307) having:

a microwave system (300) configured to generate microwave electromagnetic field;

B

an electron beam emitting device (307) configured to emit electron beams;

and

an accelerating device (305) configured to receive microwaves generated from the microwave device to form the microwave electromagnetic field for accelerating electron beams generated from the electron beam emitting device (307) and directing the accelerated electron beams to a targeting in order to generate X ray beam.

C

(3) The system for imaging inspection of & movable object (15) according to claim 2, wherein the control system starts the microwave system. (300) when the first detecting unit (101) defects the signal of the moving object (15) 10 be inspected passing into the passage (14), and generates a control signal for controlling the electron beam emitting device (307) to generate electron beam after the passing signal is received.

D

(4) The system for imaging inspection of 2 movable object (15) according to claim 2, wherein the electron beam emitting device (307) comprises:

E

an electron gun triggering control device (308) for generating a triggering synchronous signal when a signal allowing the electron gun (307) to be operated is enabled;

F

a pulsing device (309, 310) for generating a first high voltage pulse according to the triggering synchronous signal generated by the electron gun triggering control device (308); and

an electron gun (307) for emitting electron beams according to the first high voltage pulse.

G

(5) The system for imaging inspection of a movable object (15) according to claim 2, wherein the microwave system (300) comprises:

a microwave pulse device (302, 303) for generating a second high voltage pulse; and

a microwave source (304) for receiving the second high voltage pulse and generating microwave.

H

(6) The system for imaging inspection of a movable object (15) according to claim 3, wherein the control signal is generated after the microwave electromagnetic field is stabilized.

I

(7) The system for imaging inspection of a movable object (15) according to claim 1, wherein the moving object (15) is a vehicle.

(8) The system for imaging inspection of a movable object (15) according to claim 7, wherein the part (16) to be shielded is a driving cab of the vehicle.

(9) A dodging method for a moving object (15) being image inspected, comprising:

a first determining step of judging whether the moving object (15) moves into & passage (14) or not;

a second determining step of judging whether a part (16) to be shielded of the moving object passes (15) through a radiating scan area in the passage and generate 2 passing signal; and

a scan imaging step of generating a control signal for controlling a scan imaging device to generate radiating beams according to the passing signal, after judging that the part to be shielded passes through the radiating scan area, to emit radiating beam to the passage and inspect the moving object (15) by scanning to dodge the area to be shielded.

(10) The dodging method for a moving object (15) being image inspected according to claim 9, wherein after the first determining step further comprising:

a step of triggering a microwave device of an accelerator (300, 305, 307) of the scan imaging device for emitting the radiating beam to generate microwave when the moving object (15) passes into the passage; and

a step of triggering an electron beam emitting device (307) of the accelerator to emit electron beam during the step of the scan inspection.

(11) The dodging method for a moving object (15) being image inspected according to claim, wherein the moving object (15) is a vehicle.

(12) The dodging method for 2 moving object (15) being image inspected according to claim 9, wherein a part (16) to be shielded is a driving cab of the vehicle."

[60] When reduced into a figure (encl. 56/580), the invention would look like this:

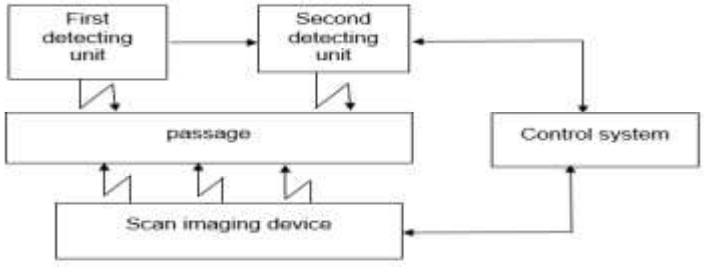


FIGURE 1

[61] Claim 1 and claim 9 are independent claims with the rest being dependent claims. Claim 1 is a product claim and claim 9 is a process claim.

The Infringement And Invalidation Claims

[62] It is Nuctech's and the University's contention that there is an infringement of the '862 Patent, for the dealing of the two units of BT-scan at CIQ and the imminent infringement of the patent for the four units of BP-scan which were at the relevant time to be installed at two places. Hence an infringement claim was filed against Pan Asiatic and the directors who then counterclaimed to declare the patent invalid.

[63] Powerscan filed its invalidation claim against Nuctech and the University who in turn filed a counterclaim seeking to declare the '862 Patent had been infringed.

Proceedings In The High Court

[64] At the High Court (HC), the infringement claim was allowed and the counterclaim was dismissed. The invalidation claim was dismissed and the counterclaim was allowed. The grounds of judgment (GOJ) can be found in encl. 48/160-231.

Our Decision

[65] The issues for determination in these appeals are as follows:

(i) whether the '862 Patent is valid;

(ii) whether the BT-scan system and the BP-scan system have infringed the '862 Patent; and

(iii) whether Goh, the director, is jointly and severally liable.

Principles In Patent Litigation

[66] We find it helpful to set out certain principles applied in patent litigation which will be relevant to these appeals.

[67] As was said in *Spind Malaysia Sdn Bhd v. Justrade Marketing Sdn Bhd & Anor* [2018] 4 CLJ 705; [2018] 4 MLJ 34, the starting point in patent litigation, whether to determine novelty, obviousness or infringement, is to determine the scope of the claims in a patent. It is only where the scope of the claims has been ascertained, the questions of obviousness, whether prior art anticipated the claim and whether there has been infringement can then be answered in concrete terms.

[68] The courts have consistently applied the purposive approach in construing patents. In *Catnic Components v. Hill & Smith Ltd* [1982] RPC 183, it was said at pp. 242 and 243 that:

> My Lords, a patent specification is a unilateral statement by the patentee, in words of his own choosing, addressed to those likely to have a practical interest in the subject matter of his invention (*ie*, "skilled in the art"), by which he informs them what he claims to be the essential features of the new product or process for which the letters patent grant him a monopoly. It is those novel features only that he claims to be essential that constitute the so-called "pith and marrow" of the claim. A patent specification should be given a purposive construction rather than a purely literal one derived from applying to it the kind of meticulous verbal analysis in which lawyers are too often tempted by their training to indulge. The question in each case is: whether persons with practical knowledge and experience of the kind of work in which the invention was intended to be used, would understand that strict compliance with a particular descriptive word or phrase appearing in a claim was intended by the patentee to be an essential requirement of the invention so that any variant would fall outside the monopoly claimed, even though it could have no material effect upon the way the invention worked.

[69] Put simply, a patent specification should be given a purposive construction rather than a purely literal one derived from applying to it the kind of meticulous verbal analysis in which lawyers are often tempted by their training to indulge.

[70] This approach was followed in *Cadware Sdn Bhd v. Ronic Corporation* [2014] 9 CLJ 1; [2013] 6 MLJ 19 where at p. 28 this court stated that "in determining patent infringement, it is the doctrine of purposive construction that ought to be applicable" where the pith and marrow test had been discarded and it place the doctrine of purposive construction as was laid down in *Catnic*.

[71] The purposive approach in *Catnic* continued to be applied in *Kirin-Amgen Inc v. Hoechst Marion Roussel Ltd* [2005] All ER 667 where it was said that construction whether of a patent or any other document is objective and the meaning of words is highly sensitive to the context and background and depends not only upon the words chosen but the identity of the audience and the knowledge and assumptions attributed to the audience.

[72] More specifically it was said at pp. 680 and 681 that:

> [32] Construction, whether of a patent or any other document, is of course not directly concerned with what the author meant to say. There is no window into the mind of the patentee or the author of any other document. Construction is objective in the sense that it is concerned with what a reasonable person to whom the utterance was addressed would have understood the author to be using the words to mean. Notice,

A however, that it is not, as is sometimes said, "the meaning of the words the author used", but rather what the notional addressee would have understood the author to mean by using those words. The meaning of words is a matter of convention, governed by rules, which can be found in dictionaries and grammars. What the author would have been understood to mean by using those words is not simply a matter of rules.
B It is highly sensitive to the context of and background to the particular utterance. It depends not only upon the words the author has chosen but also upon the identity of the audience he is taken to have been addressing and the knowledge and assumptions which one attributes to that audience. ...

C [33] In the case of a patent specification, the notional addressee is the person skilled in the art. He (or, I say once and for all, she) comes to a reading of the specification with common general knowledge of the art. And he reads the specification on the assumption that its purpose is to both to describe and to demarcate an invention – a practical idea which the patentee has had for a new product or process – and not to be a
D textbook in mathematics or chemistry or a shopping list of chemicals or hardware. It is this insight which lies at the heart of "purposive construction". If Lord Diplock did not invent the expression, he certainly gave it wide currency in the law. But there is, I think, a tendency to regard it as a vague description of some kind of divination which mysteriously penetrates beneath the language of the specification. Lord Diplock was in
E my opinion being much more specific and his intention was to point out that a person may be taken to mean something different when he uses words for one purpose from what he would be taken to mean if he was using them for another. The example in the *Catnic* case was the difference between what a person would reasonably be taken to mean by using the
F word "vertical" in a mathematical theorem and by using it in a claimed definition of a lintel for use in the building trade. ... The purpose of a patent specification, as I have said, is no more nor less than to communicate the idea of an invention. An appreciation of that purpose is part of the material which one uses to ascertain the meaning. ... There is no presumption about the width of the claims. A patent may, for one
G reason or another, claim less than it teaches or enables.

[73] Another concept is that of the person skilled in the art (POSITA) to explain the technical details of the patent specifications. The role of the POSITA was acknowledged by the HC when it referred to *Ranbaxy (Malaysia) Sdn Bhd v. E.I Du Pont Nemours And Company* [2012] 9 CLJ 79;
H [2012] 4 MLJ 34 but that ultimately all questions in connection with the interpretation of the claim and specification must be resolved by the court. For this, the HC referred to *Kendek Industry Sdn Bhd v. Ecotherm (TFT) Sdn Bhd* [2010] 10 CLJ 219.

I

[74] The POSITA is variously described in *Rockwater Ltd v. Technip France SA* [2004] EWCA Civ 381 to possess the common general knowledge relevant to the field of the patent and that it does not matter whether they do or do not approximate the skilled person but what matters is how good they are at explaining things and the reasons for their opinion.

Validity Of The '862 Patent

[75] Similar to the HC, we find it necessary to first deal with whether the '862 Patent is valid, as if it is not valid, the issue of infringement will not arise.

[76] Section 56(2)(a) of the 1983 Act confers upon the court the power to invalidate a patent. The relevant ground would be if the person requesting the invalidation proves *inter alia* that the patent is not patentable because it does not comply with the requirements of s. 11.

[77] Section 11 states that an invention is patentable if it is new, involves an inventive step and is industrially applicable.

[78] It has to be noted that s. 56(2)(a) requires that the person requesting the invalidation to prove the ground of the allegation. This means the onus of proof is on Powerscan and Pan Asiatic.

Novelty

[79] An invention is new if it is not anticipated by prior art (s. 14(1)). Subsection (2) next provides what the prior art is to consist of. We set out s. 14(1) and (2) as below:

> **14. Novelty**
>
> (1) An invention is new if it is not anticipated by prior art.
>
> (2) Prior art shall consist of:
>
> (a) everything disclosed to the public, anywhere in the world, by written publication, by oral disclosure, by use or in any other way, prior to the priority date of the patent application claiming the invention;
>
> (b) the contents of a domestic patent application having an earlier priority date than the patent application referred to in para. (a) to the extent that such contents are included in the patent granted on the basis of the said domestic patent application.

[80] *The General Tire & Rubber Company v. The Firestone Tyre and Rubber Company Ltd* [1972] RPC 457 has stated that to anticipate the patentee's claim, the prior publication must contain clear and unmistakable directions to what the patentee claims to have invented. At pp. 485 to 486, the following was stated:

> If the prior inventor's publication contains a clear description of, or clear instructions to do or make, something that would infringe the patentee's claim if carried out after the grant of the patentee's patent, the patentee's claim will have been shown to lack the necessary novelty, that is to say, it will have been anticipated. The prior inventor, however, and the patentee may have approached the same device from different starting points and may for this reason, or it may be for other reasons, have so described their devices that it cannot be immediately discerned from a reading of the language which they have respectively used that they have discovered in truth the same device; but if carrying out the directions contained in the prior inventor's publication will inevitably result in something being made or done which, if the patentee's patent were valid, would constitute an infringement of the patentee's claim, this circumstance demonstrates that the patentee's claim has in fact been anticipated.
>
> If, on the other hand, the prior publication contains a direction which is capable of being carried out in a manner which would infringe the patentee's claim, but would be at least as likely to be carried out in a way which would not do so, the patentee's claim will not have been anticipated, although it may fail on the ground of obviousness. To anticipate the patentee's, claim the prior publication must contain clear and unmistakeable directions to do what the patentee claims to have invented: ... A signpost, however clear, upon the road to the patentee's invention will not suffice. The prior inventor must be clearly shown to have planted his flag at the precise destination before the patentee.

[81] A combination of prior art (mosaic) is not permitted in relation to novelty. Refer to *Technograph Printed Circuits Ltd v. Mills & Rockley (Electronics) Ltd* [1972] RPC 346 and *Sanofi-Aventis (Malaysia) Sdn Bhd & Anor v. Fresenius Kabi (Malaysia) Sdn Bhd & Anor* [2012] 4 CLJ 532.

[82] In its submissions before the court, counsel for Powerscan stated he would only rely on the train patent and the Nuctech imaging patent as the prior art. Counsel for Pan Asiatic stated she will adopt the oral submissions of Powerscan and would rely on her written submission for the rest. The University adopted Nuctech's submissions.

[83] Hence the prior art to be considered will be the train patent and the Nuctech imaging patent.

Inventive Step

[84] Section 15 requires that the inventive step would not have been obvious to a person having ordinary skill in the art, namely POSITA. The aforesaid provision states:

15. Inventive step.

An invention shall be considered as involving an inventive step if, having regard to any matter which forms part of the prior art under para. (a) of subsection (2) of s. 14, such inventive step would not have been obvious to a person having ordinary skill in the art.

[85] The steps for obviousness have been set down in *Windsurfing International Inc v. Tabur Marine (Great Britain) Ltd* [1985] RPC 59. The first step is to identify the inventive concept; the second is for the court to identify the POSITA; the third is to identify the differences between the matter cited as being known or used and the final step is to ask whether the differences identified constitute steps obvious to the notional person skilled in art. These steps are not disputed by all the parties.

[86] Unlike in novelty, when assessing inventiveness, mosaic-ing is permissible where it must be done by an imaginative person with no inventive capacity. Refer to *Technograph Printed Circuits Ltd*.

[87] The question of obviousness must be considered without the benefit of hindsight. Refer to *Spind* at p. 60, para. 82, where it was said that the court must be wary of the danger of hindsight.

Construction Of The '862 Patent

[88] We had earlier set out claims 1 and 9 in the '862 Patent. In this regard, based on the scope of the '862 Patent, the HC had accepted that Nuctech's witness Prof David Koltick (PW2) qualifies as a person skilled in the art as well as having a practical interest of the subject matter of the invention. Reference to his CV which disclosed a strong background in the research relating to the field of scanning and imaging systems was also made. Refer to para. 64 of the GOJ. PW2 was the POSITA to explain the technical details. We find no compelling reason to depart from that.

[89] PW2 had construed the terms in the '862 Patent as can be seen in his Q&A 16 (encl. 52/91-93) and Q&A 19 (encl. 52/94-95). These terms are "a first detecting unit", "a moving object to be inspected", "passage", "a second detecting unit", "part to be shielded", "passing signal"; "scan imaging device", "a control system", "dodging method" and "radiation scan area".

[90] Refer also to the table below prepared by Nuctech to show the construction of these terms:

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3 Expert's Construction of Terms

Term in '862 Patent	Prof Koltick (PW2)'s construction
"a first detecting unit"	Claim 1 calls for a first detecting unit configured to detect whether a vehicle moves into the passage. In operation, the first detecting unit may comprise one or more sensors within the passage. One purpose of this first detecting unit is to detect and confirm that the moving object to be scanned that has moved into the passage. The first detecting unit has the purposes of sending a "get-ready" signal to the system to prepare for scanning.
"a moving object to be inspected"	The invention as claimed in the '862 Patent is aimed at a system for detecting a moving object to be inspected and the dodging of a part of the moving object while subjecting the remainder of the moving object to be scanned for imaging. Implicit in this is the requirement that the first detecting unit must be capable of being configured to distinguish between a moving object to be inspected and other moving objects.
"passage"	The invention calls for a passage into which the moving object to be inspected would go and pass through to enable scan imaging to be carried out. Based on a purposive reading of Claim 1, it appears that the passage is conceptually defined as the physical space occupied by the moving object to be inspected between the time when it encounters the first detecting unit until the time the rear end of the moving object leaves the radiating scan area and scan imaging is completed.

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D

3 Expert's Construction of Terms

Term in '862 Patent	Prof Koltick (PW2)'s construction
"a second detecting unit"	Claim 1 calls for a second detecting unit configured (a) to detect whether a part to be shielded of the moving object passes into the passage or not, and (b) to generate a passing signal after the first detecting unit detects that the moving object to be inspected moves into the passage. This suggests that the second detecting unit provides the information to differentiate the "part to be shielded", i.e. the cab where the driver sits, from the remainder of the vehicle.
"part to be shielded"	This is the part of the moving object that receives a substantially reduced dose of radiation that meets safety requirements.
"passing signal"	This is the signal generated by the second detecting unit after it has detected that the part of the moving object to be shielded passed into the passage and after the first detecting unit has detected that the moving object to be inspected has moved into the passage. This passing signal is received by the control system, configured to generate a control signal for controlling the scan imaging device to generate radiating beams.
"scan imaging device"	Scan imaging device is a device comprising an accelerator and x-ray detectors. This excludes the use of a permanent radioactive source to perform the scanning.

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G

3 Expert's Construction of Terms

Term in '862 Patent	Prof Koltick (PW2)'s construction
"a control system"	Claim 1 calls for the control system to generate a control signal for controlling the scan imaging device to generate the radiating beams according to the passing signal from the second detecting unit. The control system (a) receives the passing signal from the second detecting unit, (b) uses the information from the second detecting unit to determine the size and shape of the vehicle to be scanned, and (c) generates the control signal for controlling the scan imaging device to generate the radiating beams according to the passing signal from the second detecting unit.
"dodging method"	The word "dodging" means to expose one part of an object to be scanned to substantially less radiation than the rest of the moving object during the scan imaging process.
"radiating scan area"	Claim 9 calls for a second determining step of judging whether a part to be shielded of the moving object passes through the radiating scan area in the passage. The radiating scan area is, therefore, a physical location within the passage where the vehicle (other than the part to be dodged) is exposed to the radiating beams. This is also the area in which the scan imaging device is located and the image inspection of the vehicle is carried out.

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[91] These was in accord with the purposive approach. In his Q&A 15 (encl. 52/91), PW2 stated as follows:

Claim construction

Q15: Before we proceed to consider the issue of patent infringement, can you please explain to the Honourable court the principles on which you are relying in construing the claims of the '862 Patent?

A15: I have been advised by the Plaintiffs solicitors to interpret the claims by applying the purposive construction. In doing so, I have been advised and have interpreted the terms in the claims in the context of the specification, as their meaning would be understood by a person skilled in the art. The person skilled in the art is a notional person possessed of a common general knowledge in the relevant art.

In the case of the '862 Patent, the person skilled in the art is as described in my answer to Q&A12 above.

[92] Further, PW2 had explained the inventive concept behind the invention where it is a system for the imaging inspection of a moveable object (the product) and a dodging method (the process). This is to be found in his Q&A 14 (encl. 52/90):

Q14: Can you please explain to the Honourable Court what the Plaintiff's invention is, as described in the '862 Patent?

A14: The Plaintiffs invention is a system for the imaging inspection of a movable object and a dodging method thereof. The movable object contemplated here includes a vehicle used to transport cargo, such as a cargo truck. The Plaintiffs invention is intended to detect and dodge the vehicle cab, so that the driver is not subject to unsafe dosage/exposure of radiation during the inspection process.

In the conventional art, the scan imaging device continuously emits high energy rays and has a mechanical block plate for shielding the rays. Hence, whether or not the high energy rays irradiate towards the vehicle to be inspected or not is controlled by the block plate. The vehicle speed needs to be match to the fixed source intensity. The use of a fixed source strength and mechanical block plate are difficult to work with and present many safety issues. Compared to conventional art, the invention does not use a mechanical block plate but instead employs an electrical system that controls the emission of the radiating beam with extremely rapid responsive speed and rapid control of beam intensity which allows much better imaging and more vehicles to be examined per unit time.

In addition, in the conventional art, the known cargo scanning systems can only provide for scanning of vehicles with fixed cab sizes. The invention of the '862 Patent allows for recognition of a wide range of shapes and sizes of vehicles, and to dodge the cab section of these vehicles regardless of their shapes and sizes.

A The dodging method also requires that the beam off to on ratio be extremely low in order that the driver radiation dose be safe and acceptable. In addition the rapid on-off capability of the system ensures that a 100% inspection ratio of the cargo is achieved.

The '862 Patent *Vis-a-vis* Novelty

B **[93]** It was contended by Nuctech that Powerscan had in the HC proceedings used the train patent to attack inventive step and not novelty. This was with reference to paras. 35 and 73 of the GOJ. Powerscan's response was that it had pleaded the train patent as one of the prior art which anticipates the '862 Patent.

C **[94]** We agree that Powerscan had pleaded the train patent as prior art. This is to be seen in para. B.2(a) of its statement of claim where it pleaded that claim 1 of the patent is anticipated by the train patent (encl. 45/172, appeal 283). However as per the GOJ, the HC was clear that the train patent was not one of the prior art being relied on to invalidate the patent. This will D lend weight to Nuctech's submission that the train patent was used to attack inventive step and that no evidence was led on novelty *vis-a-vis* the train patent.

[95] Although the train patent is prior art, it cannot be used to defeat the E novelty of the '862 Patent as it was raised to attack the inventive step.

[96] As for the Nuctech imaging patent, it is not disputed that it has the same priority date as the '862 Patent namely 13 October 2006. The contention is that there is a shifting of the priority date to 25 December 2006. We had earlier found that the withdrawal of priority has no effect on the F patent, and neither did the narrowing of the CN and EU applications.

[97] Where the priority date is the same, it is clear that the Nuctech imaging patent cannot be a prior art. In this regard, s. 14(2)(a) of the 1983 Act has provided that the publication date of the relevant prior art must be before the priority date of the '862 Patent.

G **[98]** Further, we must not lose sight of the fact that the Nuctech imaging patent was withdrawn from the evidence of 3PW4/TW4 (Mohan Murali Kodivel). Refer to the notes of proceedings in encl. 3/178 as follows:

TW4: I confirm this is my report.

H TC I: Are there any amendments?

TW4: Ah yes, there is an amendment.

TC1: Mr Mohan can you speak louder?

TW4: Yes, there is an amendment. I would like to withdraw D3 or any I reference to D3 to be withdrawn.

"D3" refers to the Nuctech imaging patent.

[99] Since there is no relevant prior art before us which can be said to have anticipated the '862 patent, we find the Patent to be novel.

The '862 Patent *Vis-a-vis* Inventive Step/Obviousness

[100] In para. 74 of the GOJ, the HC had given four reasons as to why the train patent was not relevant prior art.

[101] The first reason was that the train patent dealt with a specific purpose, involving only trains. One will immediately note this was only one of four reasons and not the only reason. This dispels the notion that the train patent was not considered solely because it dealt only with trains. The more significant reasons are the three reasons below.

[102] The three other reasons were that the train patent was a mechanical system based on interlock method as opposed to the '862 Patent which uses an electronic system with pattern recognition; human intervention is required for a scan to take place whereas the '862 Patent is fully automatic and the use of a permanent radiation source Cobalt 60 in the train patent where the '862 Patent involves an accelerator. Refer to para. 74(i) to (iii) as below:

> [74] ...
>
> (i) the train patent is a mechanical system based on interlock method whereas the MY '862 Patent uses electronic system with pattern recognition.
>
> (ii) MY '862 is fully automatic, whilst the train patent requires human intervention for a scan to take place. Human intervention is required to distinguish passenger trains from the freight trains, as only freight trains will be scanned. At page 1885/B9, the train patent reads:
>
> > The train is identified as a freight train only when the **system receives the manual confirmation signal** of the freight train and the identification result based on wheel distances method or carriage gap counting method is the freight train.
>
> (iii) Further, the MY '862 Patent involves an accelerator, but the train patent uses a permanent radiation source, Cobalt 60.
>
> (emphasis added)

[103] These reasons were specifically in relation to the differences which would not render the '862 Patent obvious. This was where the HC accepted PW2's evidence. Refer again to PW2's Q&A 14 which we had earlier set out above.

[104] The claims in the train patent can be found in encl. 13/196-221. We also refer to PW2's Q&A 57(a) to (e) in encl. 52/129-134 where differences (a) to (c) were the differences accepted by the HC.

[105] The HC had also accepted DW2 who was offered as an expert on technical matters as POSITA. However, it was found that DW2's report did not deal with invalidation where para. 1.3 of his report (encl.4/164) stated:

> 1.3 Issues asked to consider
>
> The issue that I have been asked and requested to provide my opinion on can be summarized as follows:
>
> My opinion on whether the person skilled in the art would find the integers of the claim of the Patent are present in the Defendant's Supplying or Inspection System.

DW2's evidence on the '862 Patent lacking inventiveness suffered the deficiency where he had said he would not have considered the train patent and one Zhou Patent if the documents had not been given to him. This meant he did not find it obvious that the train patent and the Zhou Patent are relevant prior art.

[106] The HC had found contradictions between DW2 (Prof Jasmy Yunus), 3PW2 and 3PW4 where they were not in agreement over how the train patent would have rendered the '862 Patent obvious (para. 75 of the GOJ). This is a further cogent reason why the train patent would not render the Patent obvious. This was despite having found that DW2 could also be a POSITA in inventive steps (para. 65 of the GOJ). The contradictions are shown below:

Feature in MY '862 Patent	First Detecting Unit	Second Detecting Unit
Professor Jasmy (DW2)	C11	C5-C7
Wong Shao Feng (3PW2)	C11, C2-C4, C9-C9	C5-C7 C8-C9
Mohan Murali Kodivel (3PW4)	C11 C2-C4	C5-C7

[107] The *Windsurfing* steps on obviousness have been satisfied. Under the circumstances, it cannot be said that the '862 Patent does not involve any inventive step.

Evidence Of 3PW2 And 3PW4

[108] The HC may have called into question the independence of 3PW2/TW2 (Wang Shaofeng) given that he is an employee of Powerscan (para. 72, GOJ). However, we agree with Nuctech that his evidence was nevertheless considered and found wanting in many aspects which led to the HC preferring the evidence of PW2. Refer to paras. 51 to 53, 75, 78, and 80 to 85 of the GOJ.

[109] As for 3PW4, he himself had admitted to possessing no technical expertise in the relevant technical field. A

Evidence Of PW2 On The Train Patent Which Was Contrary To The Objective Facts

[110] It was submitted that PW2's evidence that the train patent is not a relevant prior art is inconsistent with Nuctech's conduct in China with regard to the CN application. Here, we had earlier found the narrowing of the claims has no effect on the priority date. B

Invalidation Appeal

[111] For the above reasons, we find that the '862 Patent is valid and that invalidity has not been proved, either in that the patent is not novel or does not involve any inventive step. The appeal is thus dismissed with costs to Nuctech and the University. C

Infringement Appeal D

[112] As the '862 Patent is found to be valid, we move on to the issue of infringement.

[113] Counsel for Powerscan that stated he will adopt the submissions of Pan Asiatic on infringement and would rely on his written submission for the rest. The University adopts Nuctech's submissions. E

[114] Section 58 of the 1983 Act provides for what constitutes infringement. It states as follows:

> 58. Acts deemed to be infringement. F
>
> Subject to subsections (1), (2) and (3) of s. 37 and s. 38, an infringement of a patent shall consist of the performance of any act referred to in subsection (3) of s. 36 in Malaysia by a person other than the owner of the patent and without the agreement of the latter in relation to a product or a process falling within the scope of protection of the patent.

Section 37 deals with the limitation of rights and s. 38 deals with the rights derived from prior manufacture or use. G

[115] Parties are on common ground that *Catnic* has set out how patent infringement is to be determined. At p. 225, it was said:

> To determine whether a claim patent has been infringed one must first discover what is claimed. The claim must be construed and analysed to ascertain what are the features – sometimes called the integers - of the subject matter for which a monopoly is claimed. The claim must be construed in the context of the specification as a whole and in the light of any admissible evidence. It must be read and interpreted as it would be read and interpreted by the notional addressee of the specification, that is to say, a man skilled in the relevant art who has at his disposal the common knowledge in that art at the date of the publication of the specification. When so construed the claim must be analysed to discover H I

A what are the several features of the thing for which a monopoly is claimed. One must next consider the alleged infringement to determine whether it infringes the claim. If the alleged infringement of the claim has all the features of the claim it must infringe the claim, even if it also incorporates other features. If it lacks one of the features of the claim, it may or may not infringe the claim. If the feature which is lacking is an B essential feature of the claim, there will be no Infringement; but, if the feature which is lacking is an inessential feature of the claim, the fact that it is wholly omitted from the alleged infringement, or is replaced by some equivalent, will not save the alleged infringement from being an infringement, for, if it has all the essential features of the claim, it will C infringe the claim notwithstanding the omission or substitution of an inessential feature. This formulation, I think, states the effect of the views expressed by the House of Lords in *Rodi and Wienenberge A.G v. Henry Showell Ltd.* [1969] R.P.C. 367.

[116] This will necessarily entail ascertaining the integers or features of the claim and determining whether the alleged infringing article falls within the D integers or features of the claim.

[117] Parties are also on common ground that the key integers of claim 1 and claim 9 of the '862 Patent have been identified.

[118] For claim 1, the key integers are:

E

(i) a first detecting unit configured to detect whether a moving object to be inspected moves into a passage or not;

(ii) a second detecting unit configured to detect whether a part to be shielded of the moving object passes into the passage or not and generate a passing F signal after the first detecting unit detects that the moving object to be inspected moves into the passage;

(iii) a scan imaging device configured to emit radiating beams for inspecting moving object to be inspected by scanning; and

(iv) a control system configured to generate a control signal for controlling G the scan imaging device to generate the radiating beams according to the passing signal from the second detecting unit.

[119] For claim 9, the key integers are:

(i) a first determining step of judging whether the moving object moves into H a passage or not;

(ii) a second determining step of judging whether a part to be shielded of the moving object passes through a radiation scan area in the passage and generate a passing signal; and

(iii) a scan imaging step of generating a control signal for controlling a scan I imaging device to generate radiating beams according to the passing signal, after judging that the part to be shielded passes through the radiating scan area to emit radiating beam to the passage and inspect the moving object by scanning to dodge the area to be shielded.

[120] The focus is on the key integers of the independent claims 1 and 9 as the dependent claims are entirely predicated on the independent claims.

[121] The key contentions raised by Pan Asiatic are that only the hardware of the BT-scan system and BP-scan system was identified but not the clever bits of what they can perform *vis-a-vis* the '862 Patent. So, although the BT-scan system and BP-scan system have all the integers of claim 1 and claim 9, there was no evidence on "passing signal" and "control system". It was also contended that PW2 did not personally examine and inspect the alleged infringing BT-scan and BP-scan.

[122] We are unable to agree with the above contentions. We will first refer to the table helpfully prepared by Nuctech which is a summary of infringement in encl. 72/115-116:

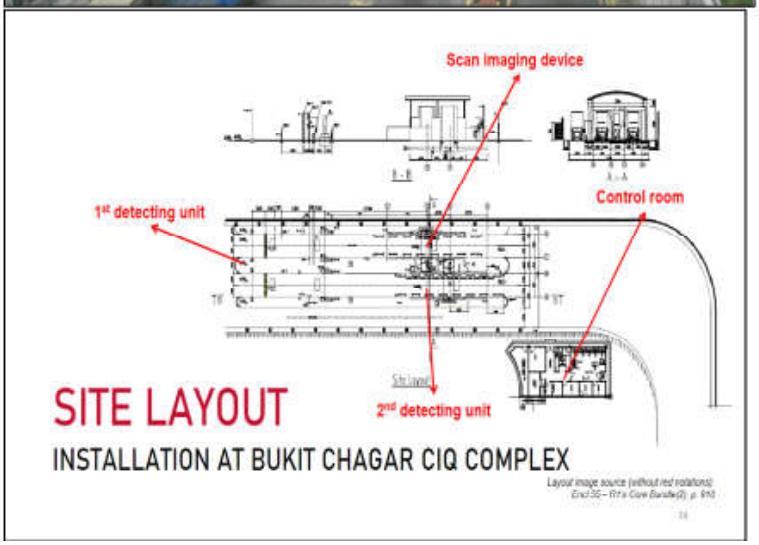
SUMMARY ON INFRINGEMENT

Integers of Claim 1 of the '862 Patent	Presence in the BT-Scan and BP-Scan
a first detecting unit configured to detect whether a moving object to be inspected moves into a passage or not	✓ Ground coil, boom gate and light curtains
a second detecting unit configured to detect whether a part to be shielded of the moving object passes into the passage or not and generate a passing signal after the first detecting unit detects that the moving object to be inspected moves into the passage	✓ Ground coil and light curtains
a scan imaging device configured to emit radiating beams for inspecting the moving object to be inspected by scanning	✓ Betatron device
a control system configured to general control signal for controlling the scan imaging device to generate the radiating beams according to the passing signal from the second detecting unit	✓ Program Logic Control (PLC)

SUMMARY ON INFRINGEMENT

Integers of Claim 9 of the '862 Patent	Presence in the BT-Scan and BP-Scan
a first determining step of judging whether the moving object to be inspected moves into a passage or not	✓ Ground coil, boom gate and light curtains are capable of detecting whether a moving object to be inspected moves into the passage
a second determining step of judging whether a part to be shielded of the moving object to be inspected passes through a radiating scan area in the passage and generate a passing signal	✓ Ground Coil and light curtains are capable of detecting whether a part to be shielded passes into the passage
a scan imaging step of generating a control signal for controlling a scan imaging device to generate radiating beams according to the passing signal, after judging that the part to be shielded passes through the radiating scan area, to emit radiating beams to the passage and inspect the moving object by scanning to dodge the area to be shielded	✓ Ground Coil and Light Curtains send signal to PLC which sends signal to Betatron to scan

[123] We also refer to the overview photograph of the BT-scan system. This is the photograph taken by PW2 referred to as photo A and the site layout plan (encl. 55/75) as shown below.



[124] Secondly, we refer to the evidence of PW2. He had explained in his Q&A 23 that he had visited the CIQ complex where the BT-scan is and observed the operations. He was not able to go into the area where the trucks were driving as it was a secured area. But he could see the system quite clearly from an elevated pedestrian walkway near it. He took videos and photographs. The HC in para. 121 of the GOJ had referred to the videos taken.

[125] Photos B (encl. 52/100) and C (encl. 52/102) showed the first and second detecting units.

Photo B: Close-up photograph of the BT-Scan showing the first detecting Unit

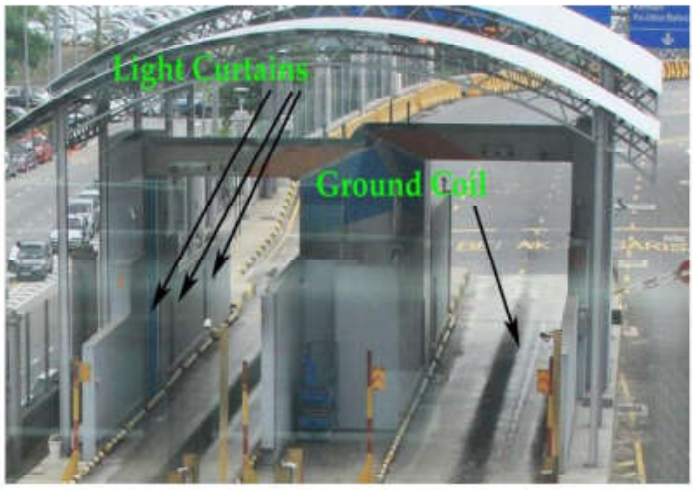


Photo C : The Second Detecting Unit of the BT-Scan

[126] PW2's Q&A 24 and 26 further deal with the specific concerns raised. It was said the second detecting unit sends a passing signal to the control system to instruct the scan imaging device to generate the radiating beams. In fact, he has explained how the system has infringed the '862 Patent from Q&A 23 to 32 (encl. 52/96-110).

[127] Further, there were concessions from the witnesses on the first detecting unit, second detecting unit and scan imaging device of the BT-scan system and what it does. This was what prompted the finding in relation to the ground coil, boom gate and light curtain which can be better appreciated when viewing photo B. (para. 103, GOJ).

[128] The evidence with regard to concessions on the first detecting unit has been reproduced in para. 101 of the GOJ, the second detecting unit in paras. 105 to 108 and the scan imaging device in para. 111.

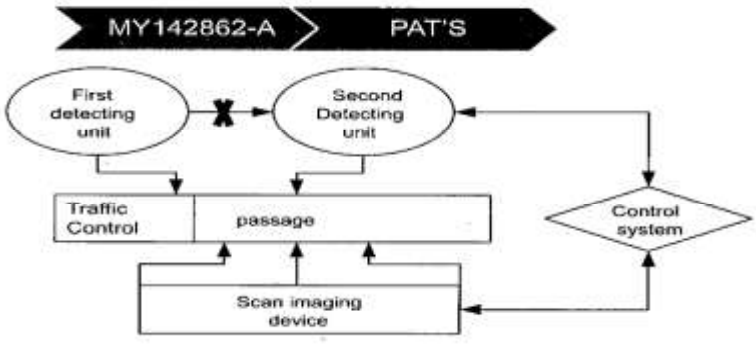
[129] The existence of a control system has also been alluded to with reference to the factory acceptance test (FAT) in encl. 8/245 as below:

3.1.1 ELECTRICAL EQUIPMENT

Electrical Equipment	Conformity (Y/N)	Remarks
One set of electrical equipment (including one complete Program Logic Control (PLC) module) for the power supply of equipment provided by the manufacturer, with:	Yes	Yes
- 1 electrical power distribution cabinet with protection systems located in the Control Room		
- 1 remote control cabinet located in the upper cabinet		

[130] It was also DW2's evidence that the BT-scan system has a control system when he stated that "computer system controls all" (para. 114 of the GOJ).

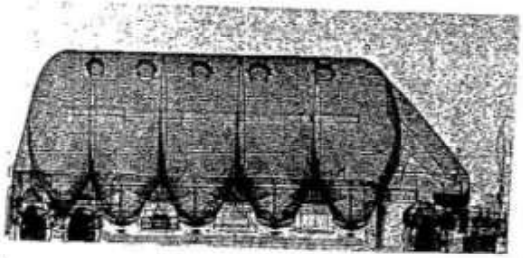
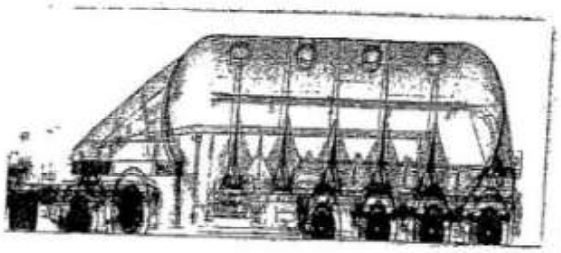
[131] Further 3PW1 in slide 22 has shown that the BT-scan system has all the components of claim 1, including the control system. Refer to encl. 5/44 as below:



[132] With regard to "dodging", this was explained by PW2 in Q&A I9 (encl. 52/95) to mean "to expose one part of an object to be scanned to substantially less radiation than the rest of the moving object during the scan imaging process". The FAT for BT-scan system shows the dosage for driver to be lesser than to the cargo which points to dodging. Refer to encl. 55/103. The evidence of 3PW1/TW1 also confirms this where it was said the driver will be scanned at a lower dose.

[133] On the BT-scan system only performing a fixed length scan, this has been dispelled by the scan image from the FAT at encl. 8/242 as below:

3D function will be demonstrated by screening a lorry.

DEMONSTRATION OF 3D FUNCTION	Conformity (Y/N)	Remarks
While the driver dives the lorry through the scanning tunnel directly, the scanning image will be shown in IS and then 3D function will be demonstrated by the authorized software. Single Energy Scanning Image:  3D View 	Yes	Yes

[134] If it is a fixed length scan, the scan images ought to look as below; which is for illustration purpose:

[135] The BT-scan system thus contains the integers in claim 1 of the '862 Patent.

[136] On the infringement by BP-scan system, this can be determined with reference to the technical specification and FAT protocol of the BP-Scan (encl. 9/134-140 and 148-150).

[137] Further, it is common ground that the BT-scan system and BP-scan system are the same, as per 3PW1's (Hu Xiao Wei) evidence except that the BP-scan system relates to scanning the driver cab. Where they are same, the finding on infringement by the BT-scan system would apply to the BP-scan system.

[138] With regard to the driver cab, the low dosage of radiation used to scan the driver cab in the BP-scan is a similar concept to the dodging system where the amount of radiation is also limited. The driver cab thus serves the same purpose, as found by the HC in para. 134 of the GOJ, which we find no reason to depart from.

[139] We find there has been a judicial appreciation of the evidence by the HC.

[140] The BT-scan system and BP-scan system have thus infringed the '862 Patent. The appeal with regard to infringement by Powerscan is dismissed with costs to Nuctech.

Liability Of Goh

[141] In para. 138 of the GOJ, the HC found that the only evidence to attach liability is the admission by Goh that he had procured the contract from Customs through his own means and expertise. Accordingly, Goh was found liable as a joint tortfeasor for the acts of infringement of the patent by Pan Asiatic.

[142] There is firstly the trite principle that a director is not liable for the actions of a company. The principles by which a party is made liable as tortfeasor with another for patent infringement has been set out in *Generics (UK) Ltd v. H Lundbeck A/S* [2006] EWCA Civ 1261. It was said that the underlying concept for joint tortfeasor must be that such a person has been so involved in the commission of the tort as to make himself liable for the tort and that unless he has made the infringing act his own, he has not himself committed the tort.

[143] The issue therefore is how has Goh been so involved so as to render him personally liable. It is not disputed that the contracts in question were procured in 2011 and 2013. If at all, there was an admission by Goh, this was in relation to a contract in 2003 which he said he procured through his own means and efforts. Refer to Q&A 4 of his witness statement where "saya telah memperolehi kontrak tersebut dengan cara dan usaha sendiri dan disokong dengan pengetahuan serta kepakaran saya diri-sendiri". The reference to "kontrak tersebut" was to a 2003 contract.

[144] From Q&A 16 to 18 and 26 (encl. 4/139) is Goh's evidence on the 2011 and 2013 contracts. It merely set out the fact of the contracts being secured with no admission similar in Q&A 4 that they were secured through his own means and efforts or expertise.

[145] We therefore find that Goh cannot be made personally liable for the infringing acts of Pan Asiatic. That part of the appeal on Goh's liability is allowed with costs to Goh.

Cross-appeal By Nuctech On Costs Awarded To It

[146] In the HC, Nuctech was awarded RM150,000 on the invalidation claim and RM150,000 on the infringement claim. It filed its cross-appeal in encl. 20 in the infringement appeal and encl. 23 in the invalidation appeal. In both cross-appeals, Nuctech sought to have the costs increased to RM2.172 million or such other quantum as considered fit.

[147] The grounds relied on are similar to both. We will refer to encl. 20 in the infringement appeal. The principal ground appears to be that the costs awarded were disproportionately low where the following relevant circumstances and factors were not considered:

(i) the complexity of the item or of the cause or matter in which it arises and the difficulty of novelty of the questions involved;

(ii) the skill, specialized knowledge and responsibility required of, and the time and labour expended by, the solicitor or counsel;

(iii) the number and importance of the documents, however brief, prepared and perused;

(iv) the place and circumstances in which the business involved in transacted;

(v) the importance of the cause of matter; and

(vi) the amount or value of the money or property is involved.

[148] According to Nuctech, the subject matter required special and rare technical knowledge and expertise entailing higher cost and expense. There were 11 volumes of bundle of documents filed, more than ten witness statements and supplementary witness statements and hundreds of pages of written submissions and reply written submissions. There had also been interlocutory proceedings found in favour of Nuctech which were ordered costs in the cause.

[149] The cross-appeals were opposed where the submission was that the HC is presumed to have rightly exercised its discretion where submissions were invited before the costs were awarded. The breakdown of costs was devoid of supporting evidence and particulars of work done.

[150] We are of course mindful that the issue of costs is discretionary but equally mindful that it should be exercised judiciously. After weighing the opposing contentions, we are of the considered opinion that the award of RM150,000 costs is on the low side, particularly considering the subject matter of the dispute and the expertise required. We find a reasonable award to be RM400,000 and we so award that amount, for each appeal.

Conclusion

[151] Appeal 223 on the infringement by Pan Asiatic is dismissed and that part of the appeal on Goh's liability is allowed.

[152] Appeal 283 on the invalidation by Powerscan is dismissed.

[153] The cross-appeals by Nuctech are allowed.

[154] On the costs of the appeals, and after hearing the submissions of parties, we award the following:

(i) on appeal 223, costs to be paid to Nuctech by Pan Asiatic for a sum of RM100,000 and costs of RM15,000 to be paid by Nuctech to Goh;

(ii) on appeal 283, costs to be paid by Powerscan to Nuctech for a sum of RM100,000 and to the University for a sum of RM20,000.

[155] We had considered the costs sought by Nuctech and the University each, of RM250,000 and that proposed by Pan Asiatic and Powerscan of RM75,000. The hearing took seven days with needless to say, voluminous bundles of documents, bundles of authorities and extensive submissions.